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21(8) PLASMA I BOOK REPRODUCTION 309/2117

Sovetskoye po eksperimental'noy tekhnike i metodam vysokotemperaturnykh issledovaniy, 1956

Experimental'nye tekhnika i metody issledovaniy pri vysokikh temperaturakh; trudy sovetskoye (Experimental Techniques and Methods of Investigation at High Temperatures; Transactions of the Conference on Experimental Techniques and Methods of Investigation at High Temperatures) Moscow, AN SSSR, 1959. 709 p. (Ser. Fiziko-khimicheskie nauki SSSR. Institut metallurgii. K. G. Glushko. Khimicheskii otdel proizvodstva stali) 2,000 copies printed.

Resp. Ed.: A. M. Samarin, Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: A. L. Mukhrinov.

PURPOSE: This book is intended for metallurgists and metallurgical engineers.

CONTENTS: This collection of scientific papers is divided into six parts: 1) thermodynamic activity and kinetics of high-temperature processes 2) constitution diagram studies 3) physical properties of liquid metals and slags 4) new analytical methods and production of pure metals 5) porosity, and 6) general questions. For more specific coverage, see Table of Contents.

Experimental Techniques and Methods (Cont.)

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Kolomoyskiy, A. G., and V. M. Malinov. Investigation of the Penetration of Radioactive Isotopes into the Body of the Ingot by Means of Radioactive Isotopes 708

The largest number of samples showing radioactivity consisted of those ingots with the shortest holding time after teeming. The smallest number of such samples were those which were held for a period of 1-11/2 hours after teeming. In cases of identical holding time, the greatest radioactivity was observed in those ingots which had been heated with hot-topping additions of carbon blast and channel, and the least in those heated with additions of pure metal. The radioactivity mixture, thus obtained, was found to be uniform throughout the ingot. It is assumed that the depth of penetration depends on the holding time after teeming and on the type of hot-topping addition.

Kalinin, Ye. S., and A. M. Samarin. Effect of Resumer Heads on the Contamination of Ball Bearing Steel With Nonmetallic Inclusions 710

Card 29/32

KOLESNIK, A.G.

Effect of the somatotropic hypophyseal hormone on glycine- $C^{14}$  and  $Ca^{45}$  metabolism in the teeth and jaws. Teor. i prak.stom. no.6:89-93 '63. (MIRA 18:3)

1. Iz kafedry patologicheskoy fiziologii (zav. - chlen-korrespondent AMN SSSR prof. P.A.Fedorov) i nauchno-issledovatel'skoy laboratorii (zav. - starshiy nauchnyy sotrudnik A.A.Prokhochukov) Moskovskogo meditsinskogo stomatologicheskogo instituta.

GRIBANOV, V.G.; KOLESNIK, A.I.

Roadside improvement on railroad lines. Put' i put.khoz. 5 no.8:20  
Ag '61. (MIRA 14:10)

1. Nachal'nik sluzhby puti Yuzhnoy dorogi, Khar'kov (for Griбанov).
  2. Nachal'nik sluzhby puti Severo-Kavkazskoy dorogi, g. Rostov-na-Donu (for Kolesnik).
- (Railroads--Track) (Roadside improvement)

KOLESNIK, A.I.; AYVAZIAN, G.S.

They set the example. Put' i put.khos. 5 no.9:20 S '61.  
(MIRA 14:10)  
(Caucasus--Railroads--Maintenance and repair)

AYVAZYAN, G.S., insh. (g.Rostov-na-Donu); KOLESNIK, A.I., insh. (g.Rostov-na-Donu)

Railroad efficiency promoters. Put' 1 put.khoz. 5 no.10:23-24  
'61. (MIRA 14:10)

(Railroads--Maintenance and repair)

KOLESNIK, A.I., inzh.

A better way to maintain the ballast section. Put' 1 put.khoz.  
6 no.2:16 '62. (MIRA 15:2)

1. Nachal'nik sluzhby puti Severo-Kavkazskoy dorogi, g.  
Rostov-na-Donu.  
(Railroads---Maintenance and repair)

NOVOZHILOV, M.G., prof., doktor tekhn.nauk; TARTAKOVSKIY, B.N., kand.tekhn.  
nauk; ESKIN, V.S., inzh.; KOLESNIK, A.N., inzh.

New technological layouts for using the open-pit method to  
work Ukrainian manganese ore deposits. Gor. zhur. no.9:12-16  
S '63. (MIRA 16:10)

1. Dnepropetrovskiy gornyy institut.

KOLESHNIK, A.P.; POLYANSKIY, A.P.; YEROSHIN, S.O.

Use of ejectors for transporting casinghead gas. Neft.khoz. 33  
no.2:79-84 F '55: (MIRA 8:4)  
(Gas, Natural--Transportation)

SKRYARENKO, I.P., inzh.; KRIGMAN, P.Ye.; SHESTERMENKOV, V.I.; KOLESNIK, A.P.

Radioluminescent light sources with tritium filling. Svetotekhnika  
9 no.8:23-26 Ag '63. (MIRA 16:8)

1. Makeyevskiy institut po bezopasnosti rabot v gornoy promyshlennosti.  
(Electric lighting) (Luminescence)

KOLESNIK, A.P.; EZDRIN, M.B.

Results of the conference on regional geological and geophysical studies in the marginal zone of the Caspian Lowland. Sov. geol. 7 no.7:147-152 J1 '64. (MIRA 17:11)

1. Nizhne-Volzhskiy nauchno-issledovatel'skiy institut geologii i geofiziki.

KOLESNIK, A.S.

MATSKEVICH, R.N.; KRASOVITSKIY, B.N.; KOLESNIK, A.S.

Acid azo dyes from meta-aminophenylimide of naphthalic acid.

Uch.sap. KHGU 71:257-259 '56.

(MLBA 10:8)

(Azo dyes) (Naphthalic acid)

GEYZENBLAZEN, B.Ye., inzh., GONCHAROV, Yu.G., inzh.; KOLESNIK, A.S.;  
LAZARENKO, N.A.; DAVIDKOVICH, A.S., inzh.

Automation of a two-stage crushing cycle. Gor. zhur. no.2:54-57  
F '65. (MIRA 18:4)

1. Metallurgavtomatika (for Geyzenblazen, Goncharov, Davidko-  
vich). 2. Tsentral'nyy gornobogatitel'nyy kombinat, Krivoy  
Rog (for Kolesnik, Lazarenko).

KOLESNIK, A.S.; KHARKHUTA, T.I.

Before starting the summer work. Puti i put. khoz. no.4:4-6 Ap  
'59. (MIRA 13:3)

1. Nachal'nik sluzhby puti, zdaniy i sooruzheniy, g.Ufa (for Kolesnik).
2. Nachal'nik tekhnicheskogo otdela sluzhby puti, zdaniy i sooruzheniy,  
g.Ufa (for Kharkhuta).

(Railroads--Maintenance and repair)

KOLESHNIK, A.S., insh. (g. Ufa)

Preparing for the winter season. Put' 1 put. khos. no.8:14-15  
Ag '59. (MIRA 13:3)

(Railroads--Snow protection and removal)

KOLESNIK, A.S., insh.

Preventing the swelling of ground. Put' 1 put.khoz. 4 no.1:  
25-26 Ja '60. (MIRA 13:5)  
(Railroads--Maintenance and repair)

KOLESNIK, A.S.; AYVAZYAN, G.S.

Improved labor protection. Put' 1 put. khoz. 7 no.5:6-7 '63.  
(MIRA 16:7)

1. Nachal'nik sluzhby puti Severo-Kavkazskoy dorogi, Rostov-na-Donu (for Kolesnik). 2. Glavnyy inzh. sluzhby puti Severo-Kavkazskoy dorogi, Rostov-na-Donu (for Ayvazyan).  
(Railroads—Safety measures)

DAVIDKOVICH, A.S.; GONCHAROV, Yu.G.; GEYZENBLAZEN, B.Ye.; BABKOVA, T.B.;  
PRIADKO, V.D.; BELETSKIY, Ye.P.; KOLESNIK, A.S.; LAZARENKO, N.A.

Analysis of the efficiency of work output of the automated  
ore dressing section in the Krivoy Rog Central Mining and Ore  
Dressing Combine. Met. i gornorud. prom. no.4:64 J1-Ag '65.  
(MIRA 18:10)

KOLESNIK, A.V., agronom po zashchite rasteniy

Shield bug Eurygaster integriceps in Orenburg Province. Zashch.  
rast. ot vred. i bol. 8 no.4:11 Ap '63. (MIRA 16:10)

1. Orenburgskoye proizvodstvennoye upravleniye.  
(Orenburg Province—Eurygasters—Extermination)

SLADKOSHTETEV, V.T.; AKHTYRSKIY, V.I.; POTANIN, R.V.; KUCHMINSKIY, Yu.M.;  
SLIN'KO, A.N.; Prinimali uchastiye: GRIGOR'YEV, P.N.; DRUZHININ,  
I.I.; OSIPOV, V.G.; PARASHCHENKO, R.A.; KOPYTIN, A.V.; KOLESNIK,  
A.Ye.; KHAVALADZHI, V.I.; NOSOCHENKO, O.V.

Material balance of smelting with continuous casting. Sbor.trud.  
UHIIM no.11:124-130 '65.

(MIRA 18:11)

KOLESNIK, B., inzh.

Mechanising the loading and unloading of cement. Mekh. stroi. 19  
no.6:16 Je '62. (MIRA 17:2)

1. Glavnyy inzh. tresta Altaysvinetsstroy.

CHEREDNIK, V.A.; KOLESNIK, B.G.

New automatic line for pressing, drying and packaging refined  
sugar. Sak. prom. 32 no.12:31-37 D '58. (MIRA 11:12)

1. Krasnopresnenskiy sakharo-rafinadnyy zavod imeni Mantulina.  
(Moscow--Sugar industry--Equipment and supplies)

CHEREDNIK, V.A.; KOLESHNIK, B.G.

Mechanized line for packing refined sugar into bags. Sakh.prom.  
33 no.7:48-52 J1 '59. (MIRA 12:11)

1. Krasnopresnenskiy sakharo-rafinadnyy zavod.  
(Moscow--sugar industry--Equipment and supplies)  
(Packaging machinery)

KOLESNIK, B. P.

"X-Ray Investigation of the Phase Composition of Layers Deposited on Metals After Spark Processing With Various Electrodes." Cand Tech Sci, Dnepropetrovsk Order of Labor Red Banner Metallurgical Inst imeni I. V. Stalin, Min Higher Education USSR, Dnepropetrovsk, 1954. (KL, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)  
SO: Sum. No. 556, 24 Jun 55

KOLESNIK, P. P.

1490 Rentgenostrukturnoye issledovaniye fazovogo sostava sloyev, póluchayemykh na metallakh posle iskrovoy obrabotki razlichnymi elektrodami" Dnepropetrovsk, 1954. 15 a 21 sm. (M-vo vyssh. obrazovaniya SSSR. Dnepropetr. ordena Trud. Krasnogo Znameni metallurgich. in-t im. I. V. Stalina) 100 ekz. B. ts- (54-515540

SO: Knizhaya Letopis', Vol. 1, 1955

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RONESNIK, R. P.

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CIA-RDP86-00513R000723730010-8"

KOLESNIK, B.P.

122-4-15/29

AUTHOR: Kolesnik, B.P., Candidate of Technical Sciences.

TITLE: A regulator for electric spark hardening. (Regulyator dlya elektroiskrovogo uprochneniya)

PERIODICAL: "Vestnik Mashinostroyeniya" (Engineering Journal), 1957, 37, No.4, pp. 65 - 66 (U.S.S.R.)

ABSTRACT: To achieve consistency of results the vibrator of an electric spark hardening device was suspended at the end of a vibrating system consisting of a spring and mass guided in vertical guides. For checking the operation and setting the regulator, a cathode ray oscillograph was connected across the spark gap. The vibrating system spring can always be adjusted  
1/1 to obtain a constant peak discharge.

There are two figures and 2 Slavic references.

AVAILABLE:

AUTHORS: Starodubov, K. F. and Kolesnik, B. P. 126-5-3-9/31

TITLE: X-ray Structure Studies on Metals after Electro-spark Working (Rentgenostrukturnoye issledovaniye metallov posle elektroiskrovoy obrabotki)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1957, Vol V, Nr 3, pp 434-441 (USSR)

ABSTRACT: Data are given on the phase composition and micro-hardnesses of more than 100 combinations of V, Mn, Zr and Nb with graphite, Al, Fe, Ni, Cu, Zn, Cd, Sn, Pb and Bi after electro-spark working. The standard Lazarenko electro-spark hardener (Ref.1) was used, and the surface layers were studied with chromium radiation in a 114.6 mm diameter X-ray camera. The hardness tests were done at 20 g loads on a FMT-3 unit. Table 1 (pp 436-7) gives the worked metal (left column) against electrode metal (top line); the data are the phases found, the Greek letters being solid solutions and the stars denoting supersaturated solutions; the + sign means that a mechanical mixture of the electrode and base metals is formed. Table 2 (microhardness, kg/mm<sup>2</sup>) is laid out in

Card 1/3 the same way, except that the second column on the left

126-5-3-9/31

X-ray Structure Studies on Metals after Electro-spark Working

is the microhardness before working. The results are similar to those found for other combination. The obtained results indicate that the investigated combinations interact during electro-spark hardening in the same way as combinations of other elements investigated earlier by Palatnik (Ref.2). The polarity of the electrodes do not influence the direction of transfer of the material, which is determined by the thermal constants and to a lesser extent by the shape of the electrodes. If layers of "coating" are formed on the cathode from an anode material which does not interact with the cathode material, the adhesion of the coating will always be strong. In most cases oxides are produced. It was found that more oxides are formed from the anode than from the cathode which is attributed to the pointed shape of the anode and is also considered as being a confirmation of the thermal character of the processes between the electrodes. Nitrogen containing phases of compounds could not be detected in the surface layer for any of the investigated combinations of elements.

Card 2/3 There are two tables and 9 references, all of which are Soviet.

X-ray Structure Studies on Metals after Electro-spark Working <sup>126-5-3-9/31</sup>

ASSOCIATION: Institut chernoy metallurgii AN Ukr. SSR  
(Institute of Ferrous Metallurgy, Ac.Sc., Ukr. SSR)

SUBMITTED: June 4, 1956

- 1. Metals--Structural analysis
- 2. Metals--Surface properties
- 3. X-ray diffraction analysis
- 4. Sparks--Metallurgical effects

Card 3/3

SOV/137-58-9-19009

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 124 (USSR)

AUTHORS: Starodubov, K.F., Tregubenko, A.F., Yudovich, S.Z.,  
Kolesnik, B.P., Lobarev, M.I.

TITLE: ~~Combating Decarburization~~ by Induction Heating of Alloy-steel  
Billets Before Rolling (Primeneniye induktsionnogo nagreva  
zagotovok legirovannoy stali pered prokatkoy v tselyakh bor'by  
s obezuglerozhivaniyem)

PERIODICAL: V sb. Metallovedeniye i term. obrabotka. Moscow, Metallur-  
gizdat, 1958, pp 39-49

ABSTRACT: A description is offered of experiments in induction heating  
in advance of rolling without decarburization of the billets  
(105x105x1000 mm) made of 60S2A, ShKh15 and U12A steels. It  
is established that two-frequency heating (50 cps up to the  
Curie magnetic-transformation point and then 500 cps) is opti-  
mal. Because the plant lacked a 500-cycle motor-generator  
set, induction heating was performed only at 50 cps, the cur-  
rent being taken from a 15,000-kva transformer. The design of  
the inductor is described. The drawings show the changes in  
electrical parameters and temperature in accordance with

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SOV/137-58-9-19009

Combatting Decarburization by Induction Heating of Alloy-steel (cont.)

heating time. The time required to heat the billet to 1080°C for rolling was 170 seconds in the case of 60S2A; 250 seconds were required to heat ShKh15 steel to 1150°. Under these conditions, the temperature drop across the section of the billet came to 200 and 120°, respectively, with 188 and 282 kwh/t of electrical energy consumed. Metallographic investigation showed decarburization and oxidation on the surface of the billet to be lacking. The structure of the ShKh15 steel did not change, but grain growth occurred in the 60S2A steel (by 2 or 3 points). A design is being developed for industrial application of induction heating under which the billets will be heated to 700-800° in gas furnaces and the rest of the way by 2500-cycle high-frequency current.

F.U.

1. Induction generators--Design
2. Induction generators--Performance
3. Steel--Induction heating

Card 2/2

AUTHOR: Kolesnik, B. P.

SOV/126-6-2-30/34

TITLE: Influence of the Tempering on the Phase Composition of the Surface of Iron Which was Electrically Surface Hardened by Means of Various Metals (Vliyaniye otpuska na fazovyy sostav poverkhnosti zheleza, elektrouprochnennogo razlichnymi metallami)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1958, Vol 6, Nr 2, pp 366-368 (USSR)

ABSTRACT: The authors investigated nine iron specimens which were electrically surface hardened with graphite, aluminium, vanadium, manganese, iron, nickel, copper, zirconium and niobium. The specimens were prepared in the form of cuts for X-ray structural analysis. The electric spark hardening was effected under the following regime: 80 V, 28  $\mu$ F, 1.4 A short circuit current. The test rig was fitted with a regulator which was so adjusted that the degree of charging of the condensers was the same for all the discharges. The duration of the spark hardening was about 9 mins/cm<sup>2</sup>. X-ray structural phase analysis of the surface layers and measurement of the micro-hardness was effected twice, after electric spark

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SOV/126-6-2-30/34

**Influence of the Tempering on the Phase Composition of the Surface of Iron Which was Electrically Surface Hardened by Means of Various Metals**

hardening and after electric spark hardening followed by tempering (in sealed ampules). The results are tabulated on pp 366-367. It was established that the tempering brings about considerable changes in the phase state and the micro-hardness of the surface of iron specimens spark hardened with manganese, iron and copper electrodes. In specimens spark hardened with graphite, vanadium, zirconium and niobium, the tempering brings about only an insignificant change in the phase composition and the micro-hardness. Iron specimens spark hardened with aluminium and nickel show changes in the phase composition and the micro-hardness but the magnitude of these changes is small.

There are 1 table and 2 Soviet references.

ASSOCIATION: Institut chernoy metallurgii AN Ukr.SSR (Institute of Ferrous Metallurgy, Ac.Sc.,Ukr. SSR)

SUBMITTED: Feb.4, 1957 (Initially); November 27, 1957 (after revision)

Card 2/2    1. Iron--Hardening    2. Sparks--Applications    3. Surfaces--  
Temperature effects    4. Surfaces--X-ray analysis

AUTHOR: Kolesnik, B.P.

SOV/126-6-6-10/25

TITLE: Influence of the Gaseous Medium on the Processes Taking Place During Electric-spark Hardening (Vliyaniye gazovoy sredy na protsessy, proiskhodyashchiye pri elektroiskrovom uprochnenii)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1958, Vol 6, Nr 6, pp 1031 - 1035 (USSR)

ABSTRACT: Some Soviet authors (Ref 4) believe that the nitrogen of the air plays an important role in the processes of formation of metastable phases and of hardening. Others (Refs 5, 7) have found no nitrogen or nitrogen compounds in the surface layers and they consider that N does not participate in the process of hardening. Elucidation of the role played by the air in the process of electric spark hardening is of some interest. In one series of the here described experiments the author investigated, by means of X-ray structural analysis, the phase composition of the surface of specimens in cases in which both the anode and the cathode were made of the same material. As specimens, six commercially pure materials were taken and the spark hardening was carried out by means of a

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SOV/126-6-6-10/25

Influence of the Gaseous Medium on the Processes Taking Place  
During Electric-spark Hardening

circuit with the following electrical parameters: 80 V; 28  $\mu$ F; 1.4 A short-circuit current. Regulation was provided so that the degree of charging of the condensers was the same for all the discharges. It can be seen from the data given in Table 1 that the surface layers of the investigated specimens contained oxides and high-temperature modifications of the metal but no phases nor compounds containing nitrogen were detected. In a second series of experiments the phase composition and the microhardness were studied of specimens which were spark-hardened in an atmosphere of air and in CO<sub>2</sub>. The following five electrode combinations were used: Al-C, Fe-C, Fe-Al, Cu-Al, Fe-Fe. It can be seen from Table 2 that in specimens of the combinations Al-C, Fe-C, Fe-Al, Cu-Al, spark-hardened in a CO<sub>2</sub> atmosphere, exactly the same phases form but in greater quantities than if spark-hardened in air. The following conclusions are arrived at: 1) electric-spark hardening of specimens in air with electrodes made of the same material leads to formation of oxides and/or metastable

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SOV/126-6-6-10/25

Influence of the Gaseous Medium on the Processes Taking Place  
During Electric-spark Hardening

high-temperature phases provided the particular element is of a polymorphous nature; 2) by comparing the phase composition of specimens, spark-hardened in an atmosphere of carbon dioxide and air, it was found that in the investigated combinations of material, the oxygen in the air always influences the phase composition of the surface by bringing about an intensive oxidation of the elements of the vapour phase of the discharge, thus reducing the quantity of these elements in the phases located on the surface of the specimen. Furthermore, the oxygen can saturate the surface, thus forming metastable solid solutions. In the here described experiments, no influence was detected of the nitrogen of the air in the formation of phases or compounds at the surfaces of the electrodes. There are 3 tables and 13 Soviet references.

ASSOCIATION: Institut chernoy metallurgii AN USSR (Institute of Ferrous Metallurgy of the Ac.Sc. Ukrainian SSR)

SUBMITTED: July 13, 1957

Card 3/3

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A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1961, No. 2, p. 6 # 2138

AUTHOR: Kolesnik, B. P.

TITLE: Changes in the Composition and Properties of Surface Layers of Electrically Hardened Iron as a Result of High Annealing

PERIODICAL: "Byul. nauchno-tekhn. inform. Ukr. n.-1. trubn. in-t", 1959, No. 6-7, pp. 166-169

TEXT: The author investigated Fe- specimens hardened electrically with graphite, Al, V, Mn, Ni, Fe, Cu, Zr, Nb. Electric hardening conditions were: 80 v voltage; 28  $\mu$ farad capacitance; 1.4 amp short-circuit current. Duration of hardening was 9 min/cm<sup>2</sup>. The specimens were subjected to triple tempering at 600°C for 1 h. After each heating the specimens were air cooled to 100°C. It was established that tempering caused considerable changes in the phase composition and microhardness of the Fe-specimen surface treated with Mn, Fe, Cu. The phase composition and micro-hardness of specimens treated with graphite, V, Zr, Nb, did not change after tempering. Specimens treated with Al and Ni show intermediate results.

T. R.

Translator's note: This is the full translation of the original Russian abstract Card 1/1

S/182/60/000/011/003/016  
A161/A029

AUTHORS: Shifrin, M.Yu., Kovalenko, Yu.Ye., Kolesnik, B.P., Polyakova, N.K., Kharkhorin, A.M.

TITLE: Development of Technology for Manufacture of Hollow Axles

PERIODICAL: Kuznechno-shtampovochnoye proizvodstvo, 1960, No. 11, pp.11-15

TEXT: The problem of hollow axles for rolling stock on railroads could not be solved up to now. The authors have suggested to manufacture hollow axles from hollow rolled blanks and the Uralvagonzavod plant has developed axle designs in cooperation with the Ukrainskiy nauchno-issledovatel'skiy trubnyy institut (Ukrainian Scientific Tube Research Institute) (Fig. 1, axle for plain bearings, Fig. 2, for roller bearings). Experiments were carried out with billets rolled in an automatic tube rolling mill from "45" steel per GOST 1050-57 (GOST 1050-57) standard of the following composition: (%) 0.44 C; 0.63 Mn; 0.25 Si; 0.28 S; 0.021 P; 0.13 Cr. Blanks of 230 mm diameter were pierced in a piercing mill, rolled in an automatic "220" or "400" mill with three passes, then reheated and forged on the ends in an especially designed three-impression die (Fig. 4), or in Card 1/8

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A161/A029

# Development of Technology for Manufacture of Hollow Axles

a single-impresion die (Fig. 5) for plain or roller bearings, respectively (Fig. 7 and 8). Ends were forged with a mandrel to maintain the hole in the axle trunnions. The axle wall thickness was uneven on account of the twisting of the metal in the piercing process, but this helical line of higher or lower wall thickness did not disbalance the entire axle too much. As wall unevenness can increase on account of buckling of rough axles, straightening of the rough rolled axle must be made obligatory in the manufacturing process. The axles were normalized in a continuous furnace with  $840 \pm 10^{\circ}\text{C}$  for 5 h 30 min and cooled in the air. The macrostructure of the trunnions metal was dense and sound with fibers following the axle outline without interruptions and with insignificant segregation of sulfur towards the inner surface. The mechanical properties were above the standard requirements and partly even higher than the mechanical properties of solid axles. The weight of the axles varied between 328 and 348 kg compared with 428 kg of a solid standard axle. When techniques will be improved, the weight of the hollow axle for roller bearings may be further reduced to

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A161/A029

Development of Technology for Manufacture of Hollow Axles

310-318 kg. The conclusion is drawn that manufacture of hollow axles from rolled blanks by rolling and subsequent forging of the ends is feasible. Fatigue tests of hollow axles are necessary, but a rolling shop project for manufacturing hollow axles may be developed without waiting for the test results, for hollow axle blanks can be produced by existing equipment. The recommended production equipment includes a machine for making hollow blanks, a three-high helical cross rolling mill ("stan poperechno-vintovoy prokatki") and hydraulic presses for forging the axle ends.

Card 3/8

SOV/126-8-3-29/33

**AUTHOR:** Kolesnik, B. P.  
**TITLE:** Effect of Duration of Machining on the Phase Composition of Iron, Electro-Hardened by Graphite  
**PERIODICAL:** Fizika metallov i metallovedeniye, 1959, Vol 8, Nr 3, pp 470-472 (USSR)  
**ABSTRACT:** The author has investigated Armco iron specimens which had been prepared in the form of sections for X-ray structural analysis. Low-ash electrotechnical graphite was used for hardening. The electric arc hardening of specimens was carried out under the following conditions: tension - 80 volts; capacity - 28  $\mu$ F; short-circuiting current - 1.4 A. The apparatus was provided with a power regulator, which was adjusted so that the extent to which the condensers were charged remained constant. The adjustment of the regulator and the control of the constant charge were realised with the help of an oscillograph of the EO-5 type, which was connected in a special way (Ref 4). X-ray pictures were taken in chromium irradiation in cameras with a drum diameter of 114.6 mm. Micro-photomatering was carried out in a microphotometer of the MF-2 type. The figure (p 471) shows the dependence of the

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Effect of Duration of Machining on the Phase Composition of Iron,  
Electro-Hardened by Graphite

phase composition of the surface of iron on the duration of electro-hardening of graphite. The duration of the treatment in general influences the phase composition of the surface layer during hardening for up to 6 min/cm<sup>2</sup> by using the above method. Here, the phase composition, and hence also the properties of the surface layer, change within very wide limits. Hardening of instruments and machine parts takes place essentially within a period of 0.5 to 2.5 min/cm<sup>2</sup>, ie in the region of maximum influence of treatment duration on the phase composition. Therefore, if the time of treatment is not strictly specified, a different hardening effect may be obtained despite a constant electric treatment. There are 1 figure and 5 Soviet references.

ASSOCIATION: Institut chernoy metallurgii ANU USSR (Institute of  
Ferrous Metallurgy AS UkrSSR) ✓

SUBMITTED: November 15, 1958

Card 2/2

KOLESNIK, B.P.; YAMKOVSKIY, V.M.

Relationship between the yield point and yield strength of  
the high-strength pipe steel. Standartizatsiya 24 no.3:  
19-20 Mr '60. (MIRA 13:6)  
(Steel--Testing)

S/133/62/000/001/006/010  
A054/A127

AUTHORS: Tayts, N. Yu., Doctor of Technical Sciences, Kolasnik, B. P., Yan-  
kovskiy, V. M., Candidates of Technical Sciences, Kadinova, A. S.,  
Kaufman, M. M., Engineers

TITLE: High-speed heat-treatment of drilling pipes

PERIODICAL: Stal', no. 1, 1962, 57 - 60

TEXT: The thickness of drilling-pipe walls at the end parts is sometimes  
twice that of other tube sections. At the UkrNITI (N. K. Polyakova, Engineer)  
and PNTZ (A. D. Vovsina, Engineer, A. S. Shanina, Engineer, V. I. Kostin, Engineer)  
tests were carried out to study the high-speed heat treatment of drilling pipes  
(73 x 9 mm cross section, 6.5 - 7 m long) with upset ends. The pipes were made  
of 36T2C (3602S) steel (C: 0.39%; Mn: 1.71%; Si: 0.55%; S: 0.025%; P: 0.030%)  
and "45" grade steel (C: 0.49%; Mn: 0.70%; Si: 0.25%; S: 0.041%; P: 0.028%).  
The heating temperatures (°C-numerator) and the heating rates (°/sec., denomina-  
tor) were:

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S/133/62/000/001/006/010  
A054/A127

# High-speed heat-treatment of drilling pipes

	36028	"45"
	<u>900-920</u>	<u>900-920</u>
Hardening	4.0	4.0
	<u>640-680</u>	<u>550-600</u>
Annealing	7.0	6.5

Mechanical tests revealed that the heat treatment improved the mechanical characteristics of the steel pipes, but the strength and ductility of the upset pipe ends was 10 - 30% lower than in the other pipe sections. To obtain uniform mechanical properties over the entire pipe length special measures have to be taken. To ensure uniform heating of all pipe sections, it is essential to attain the lowest possible temperature drop between the upset end and the remaining pipe. For this purpose two different processes have been established: a) preheating of the upset pipe ends, followed by heating of the whole pipe in a compartment furnace with overheating of the pipe body; b) heating of the pipe in the compartment furnace using a special method of heat distribution. With variant a), 2 removable inductors are mounted on the front stand of the hardening furnace, which

Card 2/3

S/133/62/000/001/006/010  
A054/A127

High-speed heat-treatment of drilling pipes

heat the pipe ends to about 550 - 600°C, while, subsequently, the entire pipe is heated to 1,300°C in the compartment furnace. With variant b) the pipe body is heated to 1,000°C, the pipe ends to 760°C, at a furnace temperature of 1,400°C. If in the next compartments the furnace temperature is lowered to 900°C, the temperature of the upset pipe ends increases, while that of the pipe body cools down to the given temperature. This variant is to be preferred to the former. To ensure rapid cooling the upset pipe ends should be cooled by a sprayer from both sides. During hardening the pipes have to be rotated under the sprayer at a speed of at least 20 - 30 rpm. After this heat treatment the pipe geometry showed some degree of distortion, particularly ovalness. These effects could be eliminated by straightening at temperatures of 550 - 680°C, when the strength of the pipes is somewhat lowered and their ductility increased. There are 6 figures, 1 table and 5 Soviet-bloc references.

Card 3/3

S/123/62/000/014/010/020  
A004/A101

AUTHOR: Kolesnik, B. P.

TITLE: The relation between the mechanical properties of carbon steel for drive pipes and its heating conditions for hardening

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 14, 1962, 30, abstract 14B171 (In collection: "Proiz-vo trub". No. 5, Khar'kov, Metal-lurgizdat, 1961, 167 - 170)

TEXT: Investigations were carried out to study the effect of the rate and temperature of heating prior to hardening on the mechanical properties of carbon steel with the composition (in %): 0.35 C, 0.86 Mn, 0.26 Si, 0.026 P and 0.029 S. Test specimens were heated prior to hardening up to 730 - 1,010°C at a rate of 1.8 - 8 degree/sec with subsequent water-quenching. After hardening the specimens were heated to 600°C at a rate of 3 degree/sec for tempering and then cooled in air. It is shown that optimum mechanical properties of the steel are obtained by heating prior to hardening up to 860 - 910°C at a rate of 2 - 8 degree/sec with water-quenching and subsequent high-speed tempering (heating to 600°C at a rate

Card 1/2

The relation between the...

S/123/62/000/014/010/020  
A004/A101

of 3 degree/sec). Such heat-treatment conditions are recommended for steel used for drive pipes. There is 1 figure.

E. Spivak

[Abstracter's note: Complete translation]

Card 2/2

KOLESNIK, B.P.; KIRDO, I.V.; SKUL'SKIY, Yu.V.

Local heat treatment of hardened and tempered pipe. Avtom. svar.  
15 no.6:26-32 Je '62. (MIRA 15:5)

1. Ukrainskiy nauchno-issledovatel'skiy truvnyy institut (for  
Kolesnik). 2. Ordena Trudovogo Krasnogo Znameni Institut  
elektrosvarki imeni Ye.O.Patona AN USSR (for Kirdo, Skul'skiy).  
(Pipe, Steel--Welding)

TAYTS, N.Yu., doktor tekhn.nauk; KOLESNIK, B.P., kand.tekhn.nauk;  
YANKOVSKIY, V.M., kand.tekhn.nauk; KADINOVA, A.S., inzh.;  
KAUFMAN, M.M., inzh.; Prinimali uchastiye: POLYAKOVA, N.K.,  
inzh.; VOVSINA, A.D., inzh.; SHANINA, A.S., inzh.; KOSTIN, V.I., inzh.

Rapid heat treatment of drill pipes. Stal' 22 no.1:57-60 Ja '62.  
(MIRA 14:12)

1. Ukrainskiy nauchno-issledovatel'skiy trubnyy institut (for  
Polyakova).

(Pipe, Steel)  
(Steel—Heat treatment)

KOLESNIK, B.P.

Mechanical properties of 45 steel following rapid heat treatment.  
Metalloved. 1 term. obr. met. no.3:36-39 Mr '63. (MIRA 16:3)  
(Steel—Heat treatment)

KOLESNIK, B.P., kand. tekhn. nauk

Softening of improved pipe steel in the intermediate zone during  
welding or localized heat treating. Proizv. trub no. 10:91-95 '63.  
(MIRA 17:10)

ACCESSION NR: AR4041595

S/0137/64/000/005/D041/D042

SOURCE: Ref. zh. Metallurgiya, Abs. 5D248

AUTHOR: Kolesnik, B. P.

TITLE: Recrystallization by process annealing of improved pipe steel in transition zone during welding or local heat treatment

CITED SOURCE: Sb. Proiz-vo trub. Vy\*p. 10. M., Metallurgizdat, 1963, 91-95

TOPIC TAGS: recrystallization, process annealing, pipe steel, welding, heat treatment

TRANSLATION: Conducted experiments show that investigation of steel according to the character of change of mechanical properties depending on temperature of heating and the cooling medium do not differ from each other. During heating from 600 to 750° their recrystallization by process annealing occurs, caused by phenomena of high tempering. If temperature of heating exceeds 750° either work hardening

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ACCESSION NR: AR4041595

(in case of fast cooling by water), caused by phenomena of secondary hardening of austenite formed during heating, or further recrystallization by process annealing (in case of slow cooling), caused by phenomena of normalization leading to formation of ferrite and perlite is observed. Section of zone of transition temperatures during local hardening (cooling of zone by water), characterized by least strength, is region with temperature of  $750^{\circ}$ ,  $\sigma_s$  for steel 40Kh in this region is equal to  $70.5 \text{ kg/mm}^2$ , for steel 36G2S —  $69.8 \text{ kg/mm}^2$  and for steel 38KhNM —  $79 \text{ kg/mm}^2$ , which amounts to respectively 77.85 and 83% of initial magnitude. It is necessary to note that these data were obtained in conditions of slow heating (0.6 — 0.8 degrees per second) during additional heat treatment, and show maximum possible magnitude of recrystallization by process annealing of improved steel in transition zone. Usually heating in this zone during welding and local heat treatment occurs at a high speed, which leads to smaller recrystallization by process annealing. Thus, with increase of speed of heating to 3.5 — 5.2 degrees per second the magnitude of recrystallization by process annealing of investigated steel is characterized by change of  $\sigma_s$  up to 90-98% of the initial magnitude. With local normalization or welding of pipes (cooling in air) least strength and the greatest ductility in the interval of investigated temperatures

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ACCESSION NR: AR4041595

characterizes the section with temperature of 800 - 850 degrees,  $\sigma_s$  with this temperature amounts to: for steel 40Kh - 54%, steel 36023 - 70% and steel 38KhNM - 76% from initial magnitude. Thus, during local hardening improved steel recrystallizes by process annealing to a lesser degree than in case of welding or local normalization. Therefore with insufficient speed of cooling of zones of transition temperatures in conditions of local hardening increase of magnitude of recrystallization by process annealing and increase of region where it is observed is possible.

SUB. CODE: MM

ENCL: 00

Card 3/3

ACCESSION NR: AP4012433

S/0129/64/000/002/0048/0052

AUTHOR: Kolesnik, B. P.

TITLE: Velocity heat treatment of manganese silicon tubular steel

SOURCE: Metalloved. i term. obrab. metallov, no. 2, 1964, 48-52

TOPIC TAGS: high speed heat treatment, manganese silicon pipe steel, oil pipeline, thin-section product, mechanical property, 36G2S steel, heat treatment, steel, pipe steel

ABSTRACT: The purpose of the work is to establish the relation between parameters of high-speed heating (by rate and temperature) during dual heat treatment and the mechanical properties of manganese silicon steel. A study was made of 36G2S steel used for preparation of oil pipelines (0.37% C; 1.56% Mn; 0.61% Si; 0.026% P; 0.018% S; critical points  $Ac_1 = 740C$ ,  $Ac_2 = 798C$ ). For thin-section products of 36G2S steel, the high-speed heat treatment may be used instead of the usual (maintaining constant heat treating temperature) since better strength characteristics are observed. Data on the relation of mechanical properties of 36G2S steel to parameters of

Card 1/2

ACCESSION NR: AP4012433

heating (rate and temperature) in the high-speed interval studied permits selection of an optimum heat treatment cycle based on given properties. Orig. art. has: 2 Figures, 3 Tables.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy trubnyy institut  
(Ukrainian Scientific Research Piping Institute).

SUBMITTED: 00

DATE ACQ: 03Mar64

ENCL: 00

SUB CODE: ML

NR REF SOV: 004

OTHER: 001

Card

2/2

KOLESNIK, B.P., kand. tekhn. nauk

Mechanical properties of carbon steel after rapid heat treatment  
depending on the chemical composition of the metal. Proizv. trub  
no.12:92-96 '64. (MIRA 17:11)

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723730010-8

APPROVED FOR RELEASE: 06/19/2000

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APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723730010-8"

SHIPRIN, M.Yu., kand. tekhn. nauk; VOLKOVITSKIY, G.I., kand. tekhn. nauk;  
KOLESNIK, B.P., kand. tekhn. nauk; KOVALENKO, Yu.Ye., kand. tekhn.  
nauk; DZYUBA, M.I., inzh.; POLYAKOVA, P.K., inzh.

Manufacturing hollow railroad axles from centrifugally cast  
billets. Proizv. trub no.12:133-140 '64.

(MIRA 17:11)

L 23312-66 EWT(d)/EWT(m)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(l) JD/HW  
 ACC NR: AP6011200 SOURCE CODE: UR/0413/66/000/006/0032/0032

INVENTOR: Semenov, O. A.; Alferova, N. S.; Yankovskiy, V. M.; Kolesnik, B. P.; 31  
Ostrin, G. Ya.; Plyatskovskiy, O. A.; Kheyfets, G. N.; Gleyberg, A. Z.; B  
Chemerinskaya, R. I.; Gomelauri, N. G.; Blanter, M. Ye.; Sharadzenidze, S. A.;  
Suladze, O. N.; Gol'denberg, A. A.; Tsereteli, P. A.; Ubiriya, A. Ye. Seperteladze,  
O. G.

ORG: none

TITLE: Method of manufacturing strengthened tubes, Class 18, No. 179786 [announced  
 by the Ukrainian Scientific Research Institute of Pipes (Ukrainskiy nauchno-issledo-  
 vatel'skiy trubnyy institut)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 32

TOPIC TAGS: tube manufacturing, tube rolling, tube strengthening, tube heat treatment

ABSTRACT: This Author Certificate introduces a method of strengthening hot-rolled  
 tubes. According to this method, the hot-rolled tube is quenched immediately after  
 it leaves the first rolling mill, and then is sized or reduced at a tempering tempera-  
 ture. [ND]

SUB CODE: 13/ SUBM DATE: 12Nov63/ ATD PRESS: 4230

Card 1/1 ULR UDC: 621.78.08.621.771.2

KOLESHNIK, D. N.

Brief survey of the Third Committee's work. Mor. flet 18 no.12:  
29-30 D '58. (MIRA 12:1)

1. Chlen delegatsii SSSR na Mezhdunarodnoy konferentsii po morskemu  
pravu.

(Geneva--Maritime law--Congresses)

BULUSHEV, Yu.A.; GHUKHOV, M.I.; KLEMENT'YEV, Yu.V.; MAKHYEV, A.A.;  
SHAKHOVSKOY, Ye.P.; KHYLIN, A.D., red.; KOLESHNIK, D.N., red.;  
YAROVA, L.V., red.isd-va; TIKHONOVA, Ye.A., tekhn.red.

[Collection of international conventions, treaties, agreements  
and regulations concerning problems in commercial navigation]  
Sbornik mezhdunarodnykh konventsii, dogovorov, soglashenii i  
pravil po voprosam torgovogo moreplavaniia. Moskva, Izd-vo  
"Morskoi transport," 1959. 474 p. (MIRA 12:5)

1. Russia (1923- U.S.S.R.) Ministerstvo morskogo flota.  
(Maritime law)

Колесник, П. И.

Oak

Some data on seeders tested for spot seeding of oak. Les 1 step' No.3,1952

Monthly List of Russian Accessions, Library of Congress, July 1952.  
Unclassified.

*KOLESNIK, F. I.*

AUTHOR: Kolesnik, F.I., Engineer

99-1-5/10

TITLE: New Sprinkling Machines (Novyye dozhdeval'nyye mashiny)

PERIODICAL: Gidrotekhnika i Melioratsiya, 1958, # 1, pp 26-36 (USSR)

ABSTRACT: Of the several sprinkling machines tested recently, the machine "ДД-45" and pipe equipment "КДУ-55" deserve attention. This type was tested in 1956 by the Pushkin Machine Testing Station for suitability in sprinkling vegetables, industrial crops, gardens and forests, using water from temporary irrigation ditches. Technical data is given on these machines and their production is recommended.

There are 3 figures, 3 photographs and 4 tables.

AVAILABLE: Library of Congress

Card 1/1

KOLESNIK, F.I., inzh.

Work with double-boom sprinklers for the purpose of improving methods of testing agricultural machinery. Trakt. i sel'khoz mash. no. 11:26-32 (MIRA 11:11)  
N '58.

1. Pushkinskaya mashinno-ispytatel'naya stantsiya.  
(Sprinklers--Testing) (Agricultural machinery--Testing)

30(1)

SOV/99-59-4-7/10

AUTHOR: Kolesnik, F.I., Engineer

TITLE: Methods to Determine the Uniformity of Sprinkling While Testing the Sprinklers (Metody opredeleniya ravnomernosti dozhdya pri ispytanii dozhdeval'nykh mashin). Review of Foreign Technical Literature (Obzor inostrannoy literatury)

PERIODICAL: Gidrotekhnika i melioratsiya, 1959, Nr 4, pp 43-50 (USSR)

ABSTRACT: The author analyzes various methods used to determine the uniformity of sprinkling while testing sprinklers in the U.S.A., Canada, West Germany, Italy, and France at the present time. He comes to the conclusion that all these methods are of no use for Soviet research. As for Soviet achievements in that direction, the Pushkinskaya HIS has tested sprinkling equipment during the period 1951 to 1958 and established the following fact:

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SOV/99-59-4-7/10

Methods to Determine the Uniformity of Sprinkling While Testing the Sprinklers. Review of Foreign Technical Literature.

in the distribution of the water sprinkled, there are asymmetrical, double-peak, and multi-peak curves. Furthermore, Ye.G. Petrov, S.V. Timoshenko, V.M. Shelenkov, and D.V. Rantsus of the VNIIGiM, while testing a double-cantilever sprinkling unit of the DDA-100-Type at the "Bol'shevik" **sovkhoz, Moskovskaya oblast'** as early as 1940, have established the following: When sprinkling vegetables, a  $\pm 1.5-2\%$  deviation from the sprinkling norm results in a  $\pm 1\%$ -deviation from the average crop capacity. In conclusion, the author announces that he has developed a method to determine the uniformity of sprinkling of his own. Its basic principles were established by the scientific workers of the VNIIGiM as early as 1933 to 1940. The new method was published in the treatise "On Various Methods to Make Agricultural and Technical Esti-

Card 2/3

SOV/99-59-4-7/10

Methods to Determine the Uniformity of Sprinkling While Testing the Sprinklers. Review of Foreign Technical Literature.

mates of Farm Machinery" (see reference Nr 15).  
There are 15 references, 5 of which are American,  
4 - West German, 3 - Soviet, 1 - Canadian,  
1 - Italian, and 1 - French.

ASSOCIATION: Pushkinskaya MIS (Pushkinskaya MIS)

Card 3/3

KOLISHIK, F.I., inzh.

Methods for the engineering evaluation of agricultural machinery.

Mekh. i elek.sots.sel'khoz. 17 no.4:24-29 '59.

(MIRA 12:11)

1. Pushkinskaya mashinnoispytatel'naya stantsiya.  
(Agricultural machinery)

KOLESNIK, F. I.

Cand Tech Sci - (diss) "Methods of evaluating the quality of performance of sprinkler machines." Moscow, 1961. 32 pp with diagrams; (Moscow Order of Lenin Agricultural Academy imeni K. A. Timiryazeg); 200 copies; price not given; (KL, 5-61 sup, 190)

KOLESHNIK, F.V., uchitel'

Aluminothermy experiment in a test tube. Khim. v shkole 15 no.4:84-  
85 JI-Ag '60. (MIRA 13:9)

1. Srednyaya shkola, g. Chasov Yar, Stalinskoy oblasti.  
(Aluminothermy) (Chemistry--Experiments)

KOLESNIK, F.V., uchitel'

Working furnace model for burning limestone. Khim. v shkole  
16 no.5:76-78 8-0 '61. (MIRA 14:9)

1. Srednyaya shkola No.18, g.Chasov Yar, USSR.  
(Limekilns)

KOLESNIK, F.V., uchitel'

Dismountable models of blast-furnace units. Khim. v shkole 17 no.2:  
71-77 Mr.-Ap '62. (MIRA 15:3)

1. Srednyaya shkola No.18, g. Chasov-Yar, USSR.  
(Blast furnaces--Models)

KOLESHNIK, F.V., uchitel'

New variety test tube with an electric heater. Khim. v shkole 18 no.1:  
63-64 Ja-F '63. (MIRA 16'4)

1. Srednyaya shkola No.18, g. Chasov-Yar, UkrSSR.  
(Chemical apparatus) (Chemistry—Experiments)

KOLESNIK, F.V., uchitel'

Dismountable models of petroleum refining units. Khim. v shkole 18  
no.6:74-78 N-D '63. (MIRA 17:1)

1. Srednyaya shkola No.18, g. Chasov-Yar, UkrSSR.

SUBBOTA, M., slesar' (Prokhladnyy, Kabardino-Balkarskaya ASSR); POLYAKOV, I.,  
mekhanik (Sverdlovsk); KOLESIK, G., elektroslesar' (Dnepropetrovsk);  
CHEKHOV, V. (Leningrad); KALIMOV, V. (Leningrad)

Conceived, achieved. Izobr.i rats. no.4:10 '64. (MIRA 17:4)

PRISHLYAK, V.Z.; KOBLAY, D.S.; DIK, I.I.; PUZIY, Ya.S.; YAREMENKO, I.A.;  
KOLESNIK, G.K.; DEGERIN, E.R.; MEL'NIK, P.A.

From the editor's Mail. Sakh., prom. 36 no.9:68-70 S '62.

(MIRA 16:11)

1. Khodorovskiy sakharный kombinat (for Prishlyak). 2. Shpanovskiy sakharный zavod (for Koblay). 3. Kanevskiy sakharный zavod Krasnodarskogo kraya (for Dik). 4. Korenovskiy sakharный zavod Krasnodarskogo kraya (for Puziy). 5. Sumskoy sakharный trest (for Yaremenko). 6. Leningradskiy sakharный zavod Krasnodarskogo kraya (for Kolesnik). 7. Kurskiy sovet narodnogo khozyaystva (for Degerin). 8. Zhdanovskiy sakharный zavod (for Mel'nik).

KOLESNIK, G.S.

Piling of pipelines. Trudy BashNIISROI no.1:187-201 '62.

(MIRA 17:3)

KOMLEV, V.A. (Ufa); KOLESNIK, G.S. (Ufa)

Building apartment houses on pile foundations in the city of Salavat.  
Osn., fund. 1 mekh.grun. 6 no.2:15-17 '64. (MIRA 17:4)

KOLESNIK, G.S., inzh.

Pile supports for pipes. Mont. i spets. rab. v stroi. 2<sup>3</sup>  
no.12:14-15 D '61. (MIRA 15:2)

1. Bashkirskiy nauchno-issledovatel'skiy institut po stroitel'stvu.  
(Piling(Civil engineering))

KOLESNIK, I.A. [Kolesnyk, I.A.]

Application of the operational method to transverse vibrations  
of a rod in the presence of resistance. Dop. AN URSR no.9:1180-  
1184 '62. (MIRA 18:4)

1. Dnepropetrovskiy metallurgicheskiy institut.

KOLESNIK, I.A., inzh:

Analytic kinematics of a crankgear with an offsetting arrangement.  
Izv.vys.ucheb.sov.; mashinostr, no. 1:5-8 '63.

(MIRA 16:5)

1. Institut chernoy metallurgii An UkrSSR.  
(Crank and crankshafts) (Mechanical movements)

PRITYKIN, D.P.; KOLESNIK, I.A.

Eliminating breakdowns of drum-type mixers. Metallurg 9  
no.9:5-6 S '64. (MIRA 17:10)

1. Zavod "Zaporozhstal" i Dnepropetrovskiy metallurgicheskiy  
institut.

KOLESNIK, I.A. [Kolesnyk, I.A.] (Dnepropetrovsk)

Dynamic action of a moving load on a combined system consisting  
of a flexible arch with a rigidity beam. Prykl. mekh. 10  
no.4:360-367 '64. (MIRA 17:10)

1. Dnepropetrovskiy metallurgicheskiy institut.

KOLESNIK, I.A.

Calculating critical speeds for the movement of a load along  
a beam reinforced with a flexible arch. Prikl. mekh. 1 no.11:  
129-134 '65. (MIRA 19:1)

1. Dnepropetrovskiy metallurgicheskiy institut. Submitted Dec. 29,  
1964.

DMITRIYEV, N.; ZELENОВА, Lidiya Andreyevna; KUNAKOV, Mikhail  
Yemel'yanovich. Prinimali uchastiye: KOLESHIK, I.A.;  
KOLESHNIKOV, S.M.; MAKOVSKAYA, O.V.; YERSHOVA, I., red.;  
IVANOV, N., tekhn. red.

[Plant and animal world of Kaluga Province] Rastitel'nyi i  
zhivotnyi mir Kaluzhskoi oblasti. Kaluga, Kaluzhskoe knizhnoe  
izd-vo. No.1. [Animal world] Zhivotnyi mir. 1962. 184 p.  
(MIRA 15:6)

(Kaluga Province—Zoology)

KOLESNIK, I.G.; FEDORCHENKO, G.L.

Investigating the photometric center correction of the double  
astrograph at the Main Astronomical Observatory of the Academy  
of Sciences of the Ukrainian S.S.R. Izv.Glav.astron.obser.

AN USSR 4 no.1:88-95 '61.

(MIRA 14:10)

(Astronomical instruments--Testing)

KOLESNIK, I.G.

Effect of magnetic fields on the structure of the shells of novae.  
Izv. Glav. astron. obser. AN URSS 4 no.2:63-76 '62. (MIRA 15:11)  
(Magnetic fields) (Stars, New)

KOLESNIK, I.G.; FRANK-KAMENETSKIY, D.A.

Analysis of energy distribution near the Balmer limit in spectra  
of nonstable stars. Astron.zhur. 41 no.1:178-181 Ja-F '64.  
(MIRA 17:4)

1. Glavnaya astronomicheskaya observatoriya AN UkrSSR.

KOLESNIK, I.G.

Strengthening of ionization equilibrium in a stellar atmosphere.  
Astron. zhur. 42 no.1:67-73 Ja-F '55. (MIRA 18:2)

1. Glavnaya astronomicheskaya observatoriya AN UkrSSR.

CHECHURO, A.N.; KOLMSNIK, I.L.

Errors in controlling the flow of gases and material distribution in the blast furnace top. Metallurg 5 no.8:7-8  
Ag '60. (MIRA 13:7)

1. Zavod im. Dzerzhinskogo.  
(Blast furnaces)

KOLESHNIK, I.L.

Ukraine - Wheat

Cultivation of winter wheat and other winter cereals in western provinces of the Ukraine. Sov.agron. 10 no. 10, 1952.

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